Remarks

The present Amendment is being filed together with a "Request for Continued Examination (RCE) Transmittal", as a submission pursuant to 37 C.F.R. §1.114(c). Reconsideration of this Patent Application is respectfully requested.

Before turning to the merits of the Office Action of July 16, 2010, the undersigned would like to acknowledge interviews conducted with the Supervisory Primary Examiner in this matter on October 12, 2010, and on October 18, 2010. During these interviews, it was agreed that the Examiner for this Patent Application would enter and consider the five (5) documents which had earlier been submitted for consideration pursuant to the requirements of 37 C.F.R. §1.56(a), and would also fully reconsider the various issues discussed on October 12, 2010, and presented in the Office Action of July 16, 2010. The undersigned thanks the Supervisory Primary Examiner for the courtesy of these interviews, and is proceeding on this basis.

Turning to the merits of the issued Office Action, it is first indicated that a "Communication" submitted by applicant on May 4, 2010, was received but has not been entered because the submitted Communication is considered to be a "supplemental response... filed after the expiration of the period for reply set in the last Office Action" and "will not be entered as a matter of right". It is respectfully submitted that this issue is left moot by filing the "Request for Continued Examination

(RCE) Transmittal" which accompanies this Amendment and which requests entry of the previous submission pursuant to 37 C.F.R. §1.114(c). Entry and due consideration of the Communication, together with the accompanying "Declaration of Jean Laurencot", is respectfully requested.

The Office Action of July 16, 2010, next restates the refusal to consider five (5) documents which had earlier been submitted for consideration pursuant to the requirements of 37 C.F.R. §1.56(a). This is left moot by the Communication from the Examiner which was mailed on October 20, 2010, and which includes a confirmation that the submitted documents have been considered.

Following this, the Office Action of July 16, 2010, again rejects claims 8 to 22 under 35 U.S.C. §103(a) as being unpatentable over the patents to Rosenau (US 4,356,641), Weis (US 3,744,144) and Little (US 5,325,604), in the alternative. Such rejection of applicant's claims is respectfully traversed.

Discussion addressing the stated rejections of claims under 35 U.S.C. §103(a) will follow. However, before presenting this discussion, various statements made by the Examiner in the "Response to Arguments" presented from page 8 to page 11 of the Office Action of July 16, 2010, will first be addressed.

The Examiner first repeats the earlier-stated objection to applicant's use of the term "ligneous material", once again indicating that "the claimed 'ligneous material' is same as the woody material" (noting the last line of page 8 and the first line of page 9), while at the same time questioning where "from

the original specification [there is] support for the newly added term 'ligneous material'" (noting lines 3 to 5 of page 9). It is respectfully submitted that these two statements are inconsistent with each other, and that proper support for applicant's earlier amendment of the term "woody material" to "ligneous material" has been established.

As has been noted in earlier submissions, the term "ligneous material" is considered to be the same as the term "woody material", responding to the Examiner's question at the top of page 9, which should have removed this issue from further consideration. Moreover, and once again, as has been noted in earlier submissions, the title of International Application No. PCT/FR00/00492, from which the current U.S. Patent Application is derived, is "Device for High Temperature Heat Treatment of Ligneous Material" (as is noted on International Publication No. WO 00/53985), leaving the entire issue moot.

The Examiner next repeats the earlier-stated position that applicant's claims "fail to define over the prior art references", restating the position (at the middle of page 9) that the heating process of claim 8 is "carried out by the old and known lumber heating apparatus", which are considered to "pertain to the high temperature heat treatment of woody or ligneous material", as well as the position that applicant's claims "failed... to define over the... prior art references [because] claim 8 recites no specific high temperature" (noting the last line of page 9 and the first two lines of page 10).

Once again, as has been noted in earlier submissions, it is respectfully submitted that this fails to recognize what would have been the understanding of a person of ordinary skill in the art at the time applicant's invention was made, i.e., that a high-temperature heat treatment of ligneous material would be significantly different from a process for drying wood products, such as those disclosed by Rosenau, Weis and Little. However, it is respectfully submitted that this is left moot by applicant's amendment of claim 8 to recite "a high-temperature heat-treatment cycle incorporating increases in temperature above 100 degrees Celsius", reciting a "specific high temperature" which "defines over" the temperatures of the drying procedures disclosed by Rosenau, Weis and Little, which are performed at temperatures on the order of 110 to 180 °F (i.e., 43 to 82 °C), and which do not even approach the temperatures "above 100 degrees Celsius" used to perform applicant's claimed high-temperature heat treatment.

Support for the recitation of "a high-temperature heat-treatment cycle incorporating increases in temperature above 100 degrees Celsius" can be found in the specification originally submitted for this Patent Application at lines 25 to 28 of page 4, in the table at the bottom of page 8, and at lines 9 to 12 of page 10. Claim 23 has also been newly presented to recite subject matter found in the specification originally submitted for this Patent Application at lines 22 to 33 of page 7, and at lines 17 to 23 of page 9. Claim 17 has also been amended to depend from newly presented dependent claim 23.

The remainder of the Examiner's "Response to Arguments" (from the middle of page 10 to page 11) is directed to what is considered to constitute an extensive hindsight reconstruction of applicant's claimed invention, which has respectfully been traversed in earlier submissions, and which is currently being restated herein for completeness.

As has previously been stated, claims 8 to 23 are directed to the high-temperature heat treatment of a load of ligneous material for purposes of making it possible to preserve the mechanical, acoustic and insulating characteristics of the wood being treated. The "Response to Arguments" (noting lines 11 and 12 of page 9) takes the position that Rosenau, Weis and Little each "pertain to the high temperature heat treatment of woody or ligneous material". However, as has previously been demonstrated by submitted literature (noting the article entitled "Ignition and Charring Temperatures of Wood" published by the Forest Products Laboratory, Forest Service, U.S. Department of Agriculture) and the subsequently submitted "Declaration of Jean Laurencot", this would not have been the understanding of a person of ordinary skill in the art at the time applicant's invention was made. Moreover, the person of ordinary skill in the art at the time applicant's invention was made clearly would not have understood this to include heat treatments "incorporating increases in temperature above 100 degrees Celsius", as is currently recited in applicant's claims.

A high-temperature heat treatment of ligneous material

is significantly different from a process for drying a wood product, which only serves to withdraw moisture from the wood. For example, in addition to the evacuation of water from the wood being treated, a high-temperature heat treatment will also cause polymerization of the macromolecular chains of the constituents of the wood, which stabilizes the properties of the wood being treated, among other beneficial results.

Rosenau, Weis and Little disclose various processes for kiln-drying wood products, and provide no disclosure relating to a high-temperature heat treatment of a ligneous material. The drying procedures disclosed by Rosenau, Weis and Little are performed at temperatures on the order of 110 to 180 °F (i.e., 43 to 82 °C), which do not even approach the temperatures used to perform a high-temperature heat treatment, and which are in each case less than 100 degrees Celsius. Such differences in operating temperature result in significant differences in the processes used to achieve a safe and effective result.

As a consequence, while Rosenau, Weis and Little in each case disclose certain structural features in common with the structural features recited in independent claim 8, and the use of such structural features to regulate conditions within an enclosed treatment space, the operating temperatures of 110 to 180 °F disclosed by Rosenau, Weis and Little are significantly lower than the temperatures which would have been considered to be appropriate for a "high-temperature" heat treatment of ligneous material by a person of ordinary skill in the art, and

are significantly lower than 100 degrees Celsius.

It is, therefore, respectfully submitted that the person of ordinary skill in the art at the time applicant's invention was made would not have referred to the disclosures of Rosenau, Weis or Little for purposes of developing a "high-temperature" heat treatment of ligneous material, including heat treatments of such materials at temperatures above 100 degrees Celsius, and that the disclosures of Rosenau, Weis or Little are not properly cited for purposes of rejecting applicant's claims under 35 U.S.C. §103(a).

Moreover, and even if the citation of Rosenau, Weis and Little is deemed to be proper, it is noted that the disclosures of Rosenau, Weis and Little are not referred to for purposes of disclosing the subject matter which is recited at lines 15 to 25 of independent claim 8, and in particular, the "mathematical functions and formula" recited in the last five lines of claim 8 (noting the fifth line from the bottom of page 3, line 12 of page 5, and line 9 of page 7). Instead, such elements, as well as the elements recited in dependent claims 9 to 22, "are deemed to be conventional, common practice... in the heating art" (noting the fourth line from the bottom of page 3) and "are deemed to be conventional and well known in the heating art" (noting lines 12 and 13 on page 5 and line 10 on page 7), in each case, without citing any documentary evidence which would support such a conclusion.

It is, therefore, respectfully submitted that the

various analyses presented in the Office Action which pertain to lines 15 to 25 of independent claim 8 are speculative and conclusory in the absence of any documentary evidence which would support the position being taken. However, a rejection of claims under 35 U.S.C. §103(a) "cannot be sustained by mere conclusory statements", KSR International Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007). Accordingly, it is submitted that without appropriate support for the position being taken in the Office Action of July 16, 2010, the formulated rejections of claims under 35 U.S.C. §103(a) "cannot be sustained".

Moreover, and as was noted previously, the Examiner is respectfully reminded of the procedures in Section 2144.03 of the Manual of Patent Examining Procedure. Part A of Section 2144.03 does indicate that official notice without documentary evidence can be used to support a position being taken in an Office Action. In such cases, and as is noted in Part C, "an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art". However, once this has been done, as in the present Patent Application, "the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained" (emphasis added).

It is noted that the Examiner repeats the earlier stated position that "applicant did not respond or dispute the examiner's interpretation of the operations in the prior art

patents". This position is not understood because the applicant has on earlier occasions traversed the Examiner's position, for reasons stated in earlier submissions, and for reasons restated in these Remarks at pages 9 to 12.

Consequently, in the event the Examiner elects to maintain the position that the subject matter recited at lines 15 to 25 of independent claim 8 and in dependent claims 9 to 23 is "conventional, common practice... in the heating art", the citation of documentary evidence for supporting such a position is respectfully requested pursuant to Section 2144.03 of the Manual of Patent Examining Procedure. It is not relevant to the examination of this Patent Application that the "examiner is convinced that this is a common practice and common sense" (noting the fifth and sixth lines from the bottom of page 10). It is only relevant that a rejection of claims under 35 U.S.C. §103(a) "cannot be sustained by mere conclusory statements", KSR International Co. v. Teleflex Inc., supra, and that pursuant to Part C of Section 2144.03 of the Manual of Patent Examining Procedure, where an applicant has specifically pointed out errors and stated reasons why noticed facts are not considered to be common knowledge or well-known in the art, as has been done in this Patent Application, "the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained" (emphasis added).

It is, therefore, submitted that the person of ordinary skill in the art at the time the present invention was made would

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not have referred to the disclosures of Rosenau, Weis or Little for purposes of developing a high-temperature heat treatment for ligneous material, including heat treatments at temperatures above 100 degrees Celsius, and that the disclosures of Rosenau, Weis and Little would not have made applicant's claimed method obvious to the person of ordinary skill in the art at the time the present invention was made under 35 U.S.C. §103(a).

In view of the foregoing, it is submitted that this Patent Application is in condition for allowance and corresponding action is earnestly solicited.

Entry of the present Amendment, and a favorable consideration of this Patent Application in view of the foregoing, is respectfully requested.

Respectfully submitted,

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office (Fax No. 571-273-8300) on: December 16, 2010.

Date: 12/16/10 Gary M. Cohen, Esq.